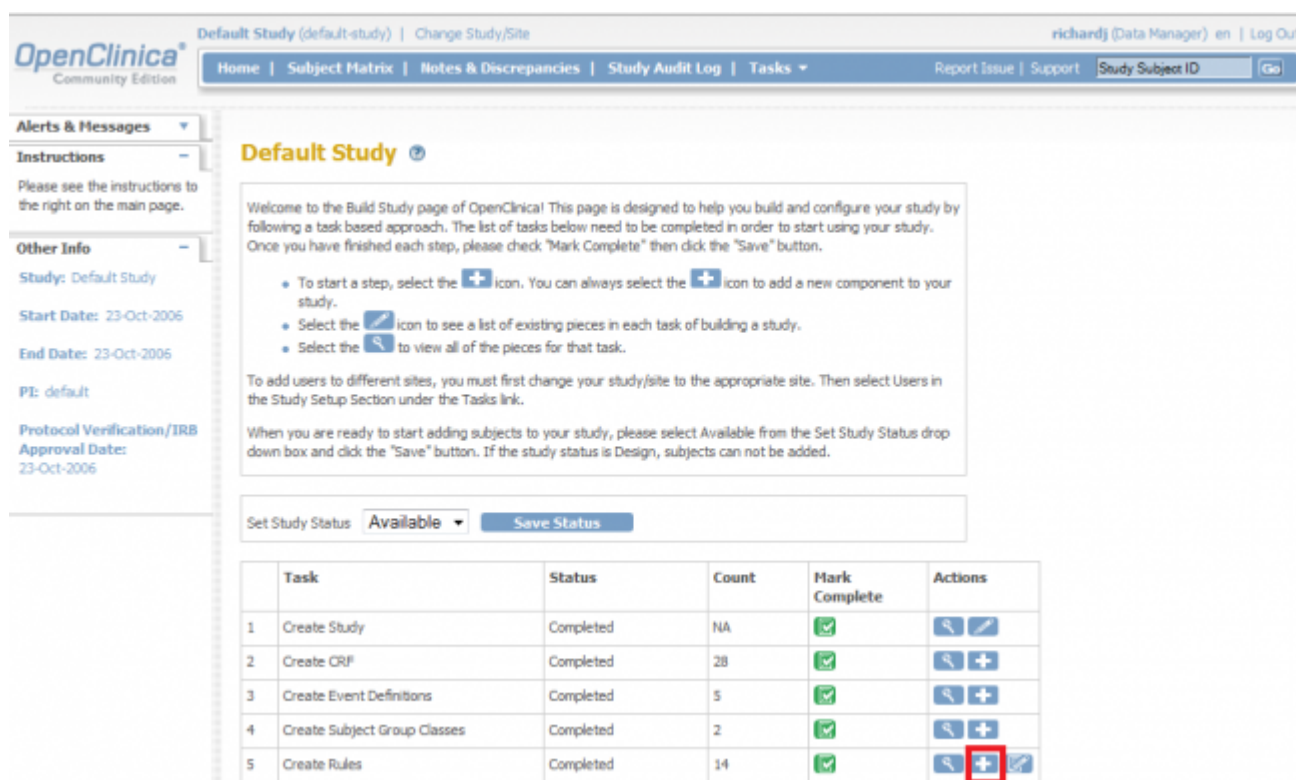# 4.4.5 Testing Expressions

To ensure the logic you provided in a rule is correct, there is a Test Rule feature. This feature simply allows you to confirm that the rule is actually testing the feature you wanted to test. To fully test your rules, it is best practice to enter test data for a test subject.

Ensure the rule is uploaded to OpenClinica:

1. Complete writing the rule

2. Log into OpenClinica

3. Select **Tasks > Build Study**

4. On the Create Rules row of the Build Study page, click

The following window displays:

Import Rule Data Default Study ⊘

Upload an XML file here: [   ] Browse...

Continue

Go back to the Build Study page

Getting started with rules

▸ Rules documentation

Templates

▸ All actions (with comments)

▸ All actions (without comments)

Workflow —

Import Rule XML ⇨ Validate Rules ⇨ Save Rules

---

5. Click **Browse**, then locate and **Open** the XML file containing the rule to be uploaded. You may only upload one file at a time.

 6. Click **Continue**, this will prompt the system to check the validity of the rule

7. If the rule is valid, a successful confirmation message is displayed. To save the rule in OpenClinica, you must select "Continue." Otherwise, click "Cancel."

Default Study (default-study) | Change Study/Site   richardj (Data Manager) en | Log Out

OpenClinica
Community Edition

Home | Subject Matrix | Notes & Discrepancies | Study Audit Log | Tasks ▾   Report Issue | Support   Study Subject ID   Go

Alerts & Messages —

Congratulations! Your rule import passed with no errors. Some existing rules or rule assignments will be updated or replaced. Please review the rule validation results. You can save it to database by clicking "Continue".

Import Rule Data Default Study ⓘ

Summary Statistics:

# of new rules: 0	# of new rule assignments: 0
# of rule updates: 1	# of rule assignment updates: 1
# of invalid rules: 0	# of invalid rule assignments: 0

[Continue]   [Cancel]

Instructions —

Please review the rules and rule assignments you have uploaded below.
Invalid rules and invalid rule assignments will have a corresponding error message indicating the error that needs to be resolved.
Rule updates and rule assignment updates will overwrite existing rules and rule assignments.
New rules and new rule assignments will be added.

New Rules

Rule OID	Rule Name	Description	Warnings

Updates to Rules
(Updates your Rules)

Rule OID	Rule Name	Description	Warnings
123	123	123	

Invalid Rules

Rule OID	Rule Name	Description	Potential Import Errors

Other Info —

Study: Default Study

Start Date: 2006-10-23

New Rule Assignments

8. If the rule in invalid, the system displays an error message containing the source of errors. Note that for invalid rules there is no "Continue" button; "Cancel" is the only option at the bottom of the page.

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Instructions –

Please review the rules and rule assignments you have uploaded below. Invalid rules and invalid rule assignments will have a corresponding error message indicating the error that needs to be resolved. Rule updates and rule assignment updates will overwrite existing rules and rule assignments. New rules and new rule assignments will be added.

Other Info –

Study: Default Study

Start Date: 2006-10-23

End Date: 2006-10-23

PI: default

Protocol Verification/IRB Approval Date: 2006-10-23

Import Rule Data Default Study ⑦

Summary Statistics:	
# of new rules: 11	# of new rule assignments: 5
# of rule updates:0	# of rule assignment updates: 0
# of invalid rules: **1**	# of invalid rule assignments: **5**

[Cancel]

New Rules

Rule OID	Rule Name	Description	Warnings
RULE1	Unknown Race	Race can not be Unknown	
RULE2	Blank exam date	The exam date in the Non Cascade CRF can not be blank.	
RULE3	No Comments Provided	Abnormal was selected in the Med History CRF, but the comments field was left blank.	
RULE4	Temp is greater than or equal to 500	The temperature for this subject was 500 or greater.	
RULE5	Temp is less than or equal to 105	The temperature for this subject was 105 or less.	
RULE6	Severe or Death	The adverse event was either severe or resulted in Death.	
RULE7	W and Normal Results	W in the selction along with Normal Results.	
DYN1	SKINAB	If Skin eq Abnormal please add comment	
DYN2	INSCOMM	Insert Temp into Other Body Comment	
DYN3	GROUPSHOW1	If Target Lesions eq Yes fill out Target Lesion Section	
DYN4	GROUPSHOW2	If Non Target Lesions eq Yes fill out Non Target Lesion Section	

Updates to Rules
(Updates your Rules)

Rule OID	Rule Name	Description	Warnings

Invalid Rules

Rule OID	Rule Name	Description	Potential Import Errors
DYN5	PEEK	Pick One eq 1 Peek	**OCRERR_0013 : The following : I_LAST1_1RADIO is not valid.**

9. Repeat step 1-7 as necessary to upload a new file/ update an invalid rule.

Testing Rules Expression in OpenClinica

In order to make creating/managing Rules easier, OpenClinica provides you with a tool to execute rules in a test environment. With the Test Rule page you will be able to modify, edit and run the rules for the desired results. You will be presented with a real time response on the validity of your test rules before uploading them into OpenClinica.

Once the rules get uploaded successfully to OpenClinica, you can verify the validity of the rule by:

1. On the Build Study page, click the View 🔍 icon to access the Manage Rules for <<Study Name>> page. Click here for more information regarding the Manage Rules page.

2. Locate the rule that you wish to validate and test

3. Under the "Actions" column of that rule, click the "Test" �'◻ icon

4. You will be prompted to the Test Rules page (see below). The Test Rules page allows you to enter specific information about the rule you want to test.

- Enter Target Name: This would be the same statement element as the Target element in RuleAssignment in the XML file
- Enter the Rule Expression: This would be the same element as the expression element in the RuleDef element in the XML file.
- Select the evaluation action from the drop-down true or false

5. Click Validate and Test

6. **Note**: If the rule is valid, you will be told whether it will pass with a True or False result. You also have the ability to specify test values for variables in your expression and re-test the rule. If the rule is valid, then a successful confirmation message is displayed. Also, addditional sections named "Step 2" and "Step 3" are displayed (see below). If a rule is invalid, OpenClinica will provide you with feedback in the form of an error message with information on why your rule was considered invalid.

7. Now, you can specify the test values for variables in the rule expression at your discreton and verify if the rule functions as expected by clicking "Validate and Save". Repeat this step as necessary.